REMARKS

Claims 28-37 and 46-55 were rejected in the Office Action. With this Amendment, claims 28, 29, 31, 36, 37, 46, 47, 49, 54, and 55 are amended, claims 30, 35, 48, and 53 are cancelled, and claims 56-60 are added. After entry of this Amendment, claims 28, 29, 31-34, 36, 37, 46, 47, 49-52, 54 and 55-60 will remain pending in the present application.

Interview Summary

An Interview on May 8, 2003, with Examiner David L. Sorkin and the undersigned is gratefully acknowledged. During the Interview the pending claims were not discussed, but instead it was confirmed that an Office Action mailed on 04 November 2002 was not received. Examiner David L. Sorkin stated that the Office Action would be remailed.

Amendments to the Specification

Applicant respectively requests that for corrective and clarification purposes: "7 and 8" on page 18, line 5 be substituted with "8 and 9"; "Fig. 3" on page 18, line 17 be changed to "Fig. 4"; and "art" be inserted before "in the will" on page 20, line 9. No new matter is added by these corrections, and Applicant does not intend for these corrections to narrow the claims.

Amendments to the Claims

The claims in the present application have been amended to more clearly define the aspects of the present invention. Method claims directed to the use of the slurry mixer have also been presented for consideration.

Claim Rejections

Rejection under Section 102(b)

The Examiner rejected claim 28-33, 35-37, 46-51, and 53-55 under 35 U.S.C. 102(b) as being anticipated by McCleary et al. (US 3,459,620). The Examiner cites Fig. 1; Fig. 6; col. 2, lines 53-57; col. 3 line 50 to col. 4, line 9 of McCleary in support of rejecting independent claims 28 and 46 as being anticipated. However, Applicant respectively submits that McCleary does not anticipate the amended claims for the reasons stated below.

An initial significant difference between the two slurry mixers is that the mixing region in the McCleary slurry mixer is encompassed by the rotor disc, the cover and the side wall. Thus, the rotor disc must support all the weight of the material being mixed.

In contrast, the mixing region in the present invention is defined by the side wall, the base wall and the top wall. In this configuration, all of the weight of the material being mixed is support by the base wall, which does not move. This configuration makes it possible to use the claimed slurry mixer with much heavier materials such as concrete slurry than the McCleary slurry mixer, which is used with relatively light gypsum slurry.

McCleary is also distinguishable by the type of mixer that is being employed. McCleary utilizes a continuous mixer in the production of gypsum board. More specifically, "in operation, stucco, water and foam in the desired proportions are introduced to the mixer (10) through mixer inlets" and "as the ingredients progress through the mixer, they form a slurry," which "is discharged into the conduit (14)." (See col. 4, lines 59-71). Therefore, because the ingredients progress through the mixer to form a slurry, it is implicit that in order to form a continuous layer of slurry, there needs to be a continuous source of the slurry.

This continuous mixer is different that the above application, which utilizes a batch mixer to produce concrete. More specifically for example, "[w]ater and cement are fed into the slurry mixer 120 from the water storage vessel 110 and the cement hopper 40...The mixing is preferably continued for up to 60 seconds, preferably between about 10 seconds and 30 seconds, and most preferably about 15 seconds." (page 31, lines 5-10). "After each batch of slurry is emptied from the slurry mixer 120, the slurry mixer 120 is refilled with water and cement." (page 31, lines 16-17). Therefore, because the mixed ingredients are emptied out of the mixer on a batch basis, the mixer in the above application must have different properties than a continuous mixer. These different properties are illustrated below.

McCleary is distinguishable because of one of the purposes that the second mixing elements on the stirring apparatus serve in the above application. While the purpose of the second mixing elements on the second stirring apparatus in the current application include, but are not limited to, mixing the slurry and removing the slurry from the mixing elements on the first stirring apparatus, they also serve to "engage the side wall as the second stirring apparatus is rotated to remove slurry from the side wall." However, in McCleary, the teeth (26) on the

outermost ring (22) are designed "such that their edges (27) tend to force the slurry [which is mixed] into the relief (25) as the rotor ring moves about its path." (col. 4, lines 6-8).

Thus, McCleary uses the "assistance of centrifugal force" and the teeth on the outermost ring to "engage the slurry and propel it outwardly into the relief (25) and through the conduit port (20)." (col. 4, lined 64-66; See also Figs. 2 and 6). This is different from the above application, which uses the second mixing elements to combat the effects of centrifugal force by removing slurry [both mixed and unmixed] away from the wall.

By removing the slurry away from the wall, the second mixing elements allow any unmixed slurry to become more thoroughly mixed and also provides a self-cleaning capability. This self-cleaning capability thereby minimizes the time and effort needed to clean the slurry mixer and assures complete slurry removal from the slurry mixer. In McCleary, however, the teeth serve to scrape the slurry along the wall, but it does not remove the slurry from the entire wall (55° arc of the circular mixer wall diverges and is not scraped, resulting in greater than 15% of the wall not being completely cleaned).

This is critical because of the property differences between the slurry in the above application and in McCleary when they are allowed to harden. In McCleary, when the slurry is left to remain in the mixer it will form crystallized gypsum, while slurry left in the mixer in the above application will form cement. Crystallized gypsum is easier to remove with the addition of water, while hardened cement is not, which results in greater adverse affects on the mixer's "parts" in the above application. Thus, the degree of the self-cleaning capability is significant, which results from removing the slurry away from the wall.

The Examiner also rejected dependent claims 29-33, 35-37, 47-51, and 53- 55 as being anticipated by McCleary et al. Applicant respectively submits that the dependent claims are not anticipated based on the aforementioned arguments set forth in the independent claims. Reconsideration and withdrawal of this rejection are respectfully requested.

Rejection under Section 103

The Examiner rejected claims 34 and 52 under 35 U.S.C. 103(a) as being unpatentable over McCleary et al. (US 3,459,620). Applicant respectively submits that the dependent claims are not obvious based on the aforementioned arguments set forth in the independent claims. Reconsideration and withdrawal of this rejection are respectfully requested.

Conclusion

In view of the foregoing, it is respectively submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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